

I claim:

5 *See 4*  
1. A method for treating a thyroid disorder, the method comprising the step of administration of a neurotoxin to a patient, thereby treating a thyroid disorder.

10 2. The method of claim 1, wherein the neurotoxin is administered to the thyroid of the patient.

15 3. The method of claim 2, wherein the thyroid disorder treated is hypothyroidism.

20 4. The method of claim 1, wherein the neurotoxin is administered to a sympathetic ganglion which innervates the thyroid.

25 5. The method of claim 4, wherein the thyroid disorder treated is hyperthyroidism.

30 6. The method of claim 1, wherein the neurotoxin is administered in an amount of between about  $10^{-3}$  U/kg and about 35 U/kg.

7. The method of claim 1, wherein the neurotoxin is made by a Clostridial bacterium.

8. The method of claim 1, wherein the neurotoxin is a botulinum toxin.

9. The method of claim 1, wherein the botulinum toxin is selected from the  
5 group consisting of botulinum toxin types A, B, C<sub>1</sub>, D, E, F and G.

10. The method of claim 1, wherein the neurotoxin is botulinum toxin type A.

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11. A method for treating a thyroid disorder, the method comprising the step  
of administration of a therapeutically effective amount of a botulinum toxin to a  
patient, thereby treating a thyroid disorder.

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12. The method of claim 11, wherein the botulinum toxin is selected from the  
group consisting of botulinum toxin types A, B, C<sub>1</sub>, D, E, F and G.

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13. A method for treating hypothyroidism, the method comprising the step of  
local administration to a thyroid of a therapeutically effective amount of a  
botulinum toxin, thereby increasing a deficient thyroid hormone secretion from a  
thyroid cell and treating hypothyroidism.

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14. The method of claim 13, wherein the botulinum toxin is selected from the  
group consisting of botulinum toxin types A, B, C<sub>1</sub>, D, E, F and G.

15. A method for treating hyperthyroidism, the method comprising the step of local administration to a sympathetic ganglion which innervates a thyroid cell of a therapeutically effective amount of a botulinum toxin, thereby reducing an excessive thyroid hormone secretion from the thyroid cell and treating hyperthyroidism.

16. The method of claim 15, wherein the botulinum toxin is selected from the group consisting of botulinum toxin types A, B, C<sub>1</sub>, D, E, F and G.

17. A method for treating hypercalcemia, the method comprising the step of local administration to a thyroid C cell of a therapeutically effective amount of a botulinum toxin, thereby increasing a deficient calcitonin secretion from a thyroid C cell and treating hypercalcemia.

18. The method of claim 17, wherein the botulinum toxin is selected from the group consisting of botulinum toxin types A, B, C<sub>1</sub>, D, E, F and G.

19. A method for treating hypocalcemia, the method comprising the step of local administration to a sympathetic ganglion which innervates a thyroid C cell of a therapeutically effective amount of a botulinum toxin, thereby decreasing an excessive calcitonin secretion from the thyroid C cell and treating hypocalcemia.

20. The method of claim 19, wherein the botulinum toxin is selected from the group consisting of botulinum toxin types A, B, C<sub>1</sub>, D, E, F and G.